

# DIN EN 12252:2006-04 (E)

## LPG equipment and accessories - Equipping of LPG road tankers

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
<b>1</b>	<b>Scope .....</b>	<b>5</b>
<b>2</b>	<b>Normative references .....</b>	<b>5</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>6</b>
<b>3.3</b>	<b>Equipment .....</b>	<b>7</b>
<b>4</b>	<b>Requirements .....</b>	<b>7</b>
<b>4.1</b>	<b>General .....</b>	<b>7</b>
<b>4.2</b>	<b>Equipment .....</b>	<b>7</b>
<b>4.3</b>	<b>Valve access .....</b>	<b>8</b>
<b>5</b>	<b>Tank .....</b>	<b>8</b>
<b>5.1</b>	<b>Design, and manufacture .....</b>	<b>8</b>
<b>5.2</b>	<b>Mounting of tank on road tanker .....</b>	<b>8</b>
<b>5.2.1</b>	<b>General .....</b>	<b>8</b>
<b>5.2.2</b>	<b>Mounting .....</b>	<b>8</b>
<b>6</b>	<b>Tank accessories .....</b>	<b>9</b>
<b>6.1</b>	<b>Required tank accessories .....</b>	<b>9</b>
<b>6.1.1</b>	<b>Contents gauge .....</b>	<b>9</b>
<b>6.1.2</b>	<b>Pressure gauge .....</b>	<b>9</b>
<b>6.1.3</b>	<b>Primary shut-off system .....</b>	<b>9</b>
<b>6.2</b>	<b>Optional tank accessories .....</b>	<b>10</b>
<b>7</b>	<b>Road tanker LPG equipment .....</b>	<b>10</b>
<b>7.1</b>	<b>Required LPG equipment .....</b>	<b>10</b>
<b>7.1.1</b>	<b>General .....</b>	<b>10</b>
<b>7.1.2</b>	<b>Pipework .....</b>	<b>10</b>
<b>7.1.3</b>	<b>Connecting hoses .....</b>	<b>10</b>
<b>7.1.4</b>	<b>Thermal expansion valves/hydrostatic relief valves .....</b>	<b>11</b>
<b>7.1.5</b>	<b>Valves .....</b>	<b>11</b>
<b>7.2</b>	<b>Optional LPG equipment .....</b>	<b>11</b>
<b>8</b>	<b>Equipment specifications .....</b>	<b>11</b>
<b>8.1</b>	<b>Suitable materials .....</b>	<b>11</b>
<b>8.1.1</b>	<b>General .....</b>	<b>11</b>
<b>8.1.2</b>	<b>Steel pressure retaining parts .....</b>	<b>11</b>
<b>8.1.3</b>	<b>Non-pressure retaining parts .....</b>	<b>11</b>
<b>8.1.4</b>	<b>Welding consumables .....</b>	<b>12</b>
<b>8.1.5</b>	<b>Non-metallic materials .....</b>	<b>12</b>
<b>8.1.6</b>	<b>Pipework .....</b>	<b>12</b>
<b>8.1.7</b>	<b>Certification of materials .....</b>	<b>12</b>
<b>8.1.8</b>	<b>Control of materials .....</b>	<b>12</b>
<b>8.2</b>	<b>Contents gauge .....</b>	<b>13</b>
<b>8.3</b>	<b>Pressure gauge .....</b>	<b>13</b>
<b>8.4</b>	<b>Temperature gauge .....</b>	<b>13</b>
<b>8.5</b>	<b>Pump .....</b>	<b>13</b>
<b>8.6</b>	<b>Hoses .....</b>	<b>13</b>
<b>8.7</b>	<b>Hose reel .....</b>	<b>14</b>

8.8	Earth reel .....	14
8.9	Metering system .....	14
8.10	Valves .....	14
8.11	Pressure relief valves (PRVs) .....	14
9	Assembly .....	14
9.1	General .....	14
9.2	Welding .....	15
9.2.1	Welding of the pressure containing parts .....	15
9.2.2	Welding of the non pressure containing parts .....	15
9.3	Flanged connections .....	15
9.4	Screwed connections .....	15
9.5	Pressure test .....	15
9.6	Leak test .....	16
9.7	External corrosion protection .....	16
10	Safety systems .....	16
10.1	General .....	16
10.2	Emergency Shut-Down system (ESD) .....	17
11	General safety requirements .....	17
Annex A (informative) Discharge rates for pressure relief valves .....		18
A.1	Setting .....	18
A.2	Discharge capacity .....	18
Annex B (informative) Calculation of mountings of tank to the chassis .....		20
B.1	General .....	20
B.2	Mounting of tank to the chassis .....	21
B.2.1	Fixing rods .....	21
B.2.2	Bolts .....	22
B.2.3	Bracket welds .....	22
B.2.4	Allowable stress .....	22
B.2.5	Typical mounting (example) .....	23
B.3	Calculation of fixing rods .....	23
B.3.1	In the direction of travel .....	23
B.3.2	At right angles to the direction of travel .....	24
B.3.3	Vertically upwards .....	24
B.4	Calculation of the bracket welds .....	24
B.4.1	General .....	24
B.4.2	In the direction of travel .....	25
B.4.3	At right angles to the direction of travel .....	25
B.4.4	Vertically upwards .....	25
B.5	Calculation of fixing bolts .....	25
B.5.1	In the direction of travel .....	26
B.5.2	At right angles to the direction of travel .....	26
B.5.3	Vertically upwards .....	26
Bibliography .....		27